

# User's Guide

# VST FireWire™ CD-R/RW Drive



# What's Inside The Box:

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**VST FireWire CD-R/RW Drive**



**Installation  
Software CD**



**FireWire Cable (2'/0.7M)**

**QuickStart Guide**

**Optional Accessories  
Available at [www.vsttech.com](http://www.vsttech.com)**

- |                             |          |
|-----------------------------|----------|
| • AC Adapter                | ACFWS    |
| • CardBus Card              | FWCBC    |
| • FireWire PCI Card         | PCIUSBFW |
| • FireWire Cable (6'/2M)    | FWCBL6   |
| • FireWire Cable (12'/3.7M) | FWCBL12  |

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## ***Congratulations!***

You are the new owner of a VST FireWire CD-R/W Drive! Designed for versatility and portability, your VST FireWire CD-R/W Drive will give you outstanding performance for years to come.

The super-thin design of the VST FireWire CD-R/W Drive makes it ideal for portable use, and no external power source is necessary when the drive is connected to a 6-pin FireWire port. An AC adapter is required if using the VST FireWire CD-R/W Drive with a FireWire CardBus Card. Order AC adapter model ACFWS from [www.vsttech.com](http://www.vsttech.com).

FireWire is an exciting new technology for connecting high speed serial devices to CPU's. FireWire is easy to use - it is hot-pluggable, allowing you to plug a device into the CPU and not have to reboot the machine. The device drivers are loaded automatically, and there are no bulky cables, terminators, or SCSI ID switches to set. You can move your FireWire devices from one machine to another and just plug in.

We thank you for your purchase of the VST FireWire CD-R/RW Drive, and we promise you the highest quality world class user experience we can deliver.

# ***Getting Started***

For proper operation, the VST FireWire CD-R/RW Drive requires:

## **Mac OS Users**

- A Macintosh computer with a FireWire port and at least 16 MB RAM
- Mac OS 8.6 or higher
- 40 MB free hard disk space
- Adaptec Toast 4.1 or higher (included on the installation CD)

## **Windows PC Users**

- A Pentium PC with a FireWire port or a FireWire CardBus Card and at least 16 MB RAM
- Windows 98 SE, Windows 2000, or Windows ME
- 40 MB free hard disk space
- Adaptec Easy CD Creator 4.02 or higher (included on the installation CD)

# ***QuickStart Instructions***

## **Connecting your VST FireWire CD-R/RW Drive**

1. Turn off your computer and all other devices.
2. Connect one end of the FireWire cable to the VST FireWire CD-R/RW drive, and connect the opposite end to a FireWire port on your computer or CardBus Card.
3. If using your VST FireWire CD-R/RW Drive with a CardBus Card, you must also use an AC Adapter (Model ACFWS available from SmartDisk).

### **Mac OS Users:**

Adaptec Toast CD Recording Software must be installed to use the device. See instructions on page 8..

### **Windows ME and Windows 2000 Users:**

You will see the VST FireWire CD-R/RW icon in My Computer or Windows Explorer. See instructions on page 8 for installing Adaptec Easy CD Creator CD Recording Software.

# ***Installing your VST FireWire CD-R/RW Drive***

## **Important Installation Instructions for Windows 98SE users only:**

It is critical that you determine if your Windows 98SE system includes the 1394 FireWire storage supplement files. Connect your VST FireWire CD-R/RW as described on page 6. If Windows recognizes the VST FireWire CD-R/RW Drive, and it is visible in My Computer and Windows Explorer, the installation is complete. If Windows asks you to insert your Windows 98SE CD into your CD-ROM drive, you will need to complete the following steps:

1. You **DO NOT NEED** your Windows 98SE Install disk.
2. At the Windows 98SE CD-ROM request, click OK. You **DO NOT** need to insert the Windows 98SE CD.
3. When the Insert Disk dialog boxes appear, choose Skip File for each file requested.
4. You will be asked one additional time to install the Windows 98SE CD. Once again, do not insert the CD. Click OK to skip file.
5. Insert the VST FireWire CD-R/RW Drive installation CD into your CD-ROM drive.
6. Select the folder called 1394 updates.
7. Double-click on the file called update1.exe and follow the directions.
8. When prompted to restart your computer, click NO to continue.
9. Double-click on the file called update2.exe and follow the directions.
10. When prompted to restart your computer, click YES to restart.
11. You will see the VST FireWire CD-R/RW Drive icon in My Computer or Windows Explorer.

# ***Installing your CD Recording Software***

## **Instructions for Windows Users**

Installing the Adaptec Easy CD Creator CD Recording Software included with your VST FireWire CD-R/RW Drive:

1. Insert the VST Installation CD into your CD-ROM drive.
2. Double click on the **Easy CD Creator** Installer and follow the on-screen instructions.

Refer to the Adaptec Easy CD Creator User Guide (included on your Installation CD) for additional information.

## **Instructions for Macintosh Users**

Installing the Adaptec Toast CD Recording Software included with your VST FireWire CD-R/RW Drive:

1. Insert the VST Installation CD into your CD-ROM drive.
2. Locate and open the appropriate language folder.
3. Double-click the **Adaptec Toast Installer** icon and follow the on-screen instructions.
4. After installation, you will be prompted to restart your Macintosh. To eject the CD, drag the VST CD icon to the **Trash**, or select **Eject** under **Special** in the task bar.

Refer to the Adaptec Toast User Guide (included on your Installation CD) for additional information.

**Important:** *We recommend use of the Adaptec software that is included on your Installation CD. If you wish to use other software, please contact the supplier to determine if the software supports the VST FireWire CD-R/RW Drive.*



## ***Preparing to write a CD***

The VST FireWire CD-R/RW Drive can:

- Read, write, and rewrite CD-R/RW disks
- Read and write information on CD-R disks

Recordable disks (CD-R) are compatible with the vast majority of CD-ROM drives and CD audio players and will work in most DVD-ROM drives.

CD-R/RW disks are only read compatible with multi-read-capable CD-ROMs, DVD-ROMs and CD-R/RW drives.

The VST FireWire CD-R/RW Drive reads and writes according to the following standards:

- MS-DOS data CDs (High Sierra, Mode 1 & Mode 2 complying with ISO 9660)
- Data CDs (Joliet) Note: Only readable under Windows 95/98 and Windows NT 4.0
- CD ROM XA
- Mixed mode CDs
- Kodak Photo CDs (single and multi-session)
- UDF (Universal Disk Format)
- Audio CDs

Steps you can take to insure optimal use of your VST FireWire CD-R/RW Drive:

- Deactivate automatic recognition of CDs (autostart)
- Deactivate the screen saver
- Shutdown your network connection
- Close all open windows
- Defragment your hard drive

CD-Rs are more sensitive than commercially available CDs. Use only a solvent-free, non-abrasive marker when writing on a CD.

Do not apply any conventional labels on the CD-Rs because the adhesive can degrade the CD. Special labels for CD-R media are available in retail computer stores. Never remove a label from a CD-R disk because you can damage the protective layer and make the CD-R unusable.

# Methods for writing CD's

There are two methods for writing CDs – Mastering and Packet Writing.

## Mastering

Mastering is a process for writing audio and data CDs. During the mastering process, the data is written to the CD according to various industry standards. This allows, for example, audio CDs to be read by any CD player. Special programs such as "Adaptec Easy Creator" or "Adaptec Toast" (included on your Installation CD) are necessary to convert data into these specified formats. These programs are necessary for writing data CDs in ISO 9660 and Joliet formats and for writing audio CDs, Mixed Mode CDs and Photo CDs.

## Packet Writing

Packet Writing can be used to create a CD without a special mastering program. This process allows you to use disks in combination with the Universal Disk Format (UDF) as an additional hard disk or floppy disk. This means that you simply copy files onto the disk. You can drag and drop files to the CD or use "Save" from any application. The CD works like a giant floppy disk. You can eject and reinsert it multiple times.

**Important:** Please note that the mastering and packet writing procedures must be used separately. You can not mix the procedures on one CD.

## Audio CDs – special considerations

- Some older CD player models can not read CD-Rs.
- Each track on an audio CD-R needs to be written continuously. If there is any interruption in the flow of data (a buffer under-run), the rest of the track may be lost. For best results, don't run any other programs on your computer while recording audio CDs.
- If you do not have enough hard disk space, you can try to write single tracks at a time.
- Audio files must have the proper format (stereo, 16 bit, 44.1 KHz sampling frequency) and must be supported by the writing software, for example, \*.wav. Some programs offer conversion functions. Sound cards and the software that comes with them can also be used.

# Operating your VST FireWire CD-R/RW Drive

## Power Sources

The drive does not have an ON/OFF switch. The drive is ready for operation when it is connected to the computer via the FireWire cable. If you are connecting the VST FireWire CD-R/RW Drive to a CardBus Card, you must also connect it to an AC Adapter (Model #ACFWS, available from [www.vsttech.com](http://www.vsttech.com)).

**IMPORTANT:** *If you daisy chain more than two bus-powered FireWire devices on a single Macintosh FireWire port, there may not be enough power available from your Macintosh to power-up another drive. In this case, you must power additional FireWire devices using the optional VST FireWire drive AC adapter (VST Part # ACFWS) which is available from VST.*

## Listening to audio CD's on your VST FireWire CD-R/RW Drive

You can listen to audio CDs on your VST FireWire CD-R/RW Drive. A line output jack on the side of the VST FireWire CD-R/RW Drive is used only with older Mac and PC operating systems that do not support digital audio. If you own a computer with an older operating system, you may have to connect a pair of amplified speakers to this jack.

## Ejecting CD's

The VST FireWire CD-R/RW Drive must be powered on for normal CD insertion and removal. Push the eject button on the front of the device. If you need to eject a CD when the drive is not powered on, unlock the drawer by carefully inserting a straightened paper clip into the emergency disk eject hole (see diagram on page 11). When pulling out the paper clip, the tray is unlocked and can be fully opened by hand.

**Note:** For Mac users: To eject the CD, drag the CD icon to the trash.

## ***Precautions***

- Never clean the VST FireWire CD-R/RW Drive with commercially available CD-ROM cleaning sets. Cleaning is not necessary and use of Q-tips or cleaning kits could damage the drive.
- The VST FireWire CD-R/RW drive can be operated in either an upright or horizontal position. Do not move the drive while it is in operation.
- The recommended temperature range for drive operation is 10 - 45°C (50° to 113° F).
- Avoid operating the drive in dusty and humid surroundings.
- Do not operate the drive near strong sources of electromagnetic radiation (loud speakers, mobile phones, etc.)

## ***Troubleshooting***

If you have problems getting your VST FireWire CD-R/RW Drive to function properly, please insure that:

- The FireWire cable is properly connected to the drive and the computer.
- The drive is being supplied with power.
- The tray can be opened and closed.
- The system meets hardware and software requirements (see page 5).

If your computer has problems while installing the software:

- Do not use memory management (such as QEMM).
- Disable the system's Power Management.
- Insure that your drive is supplied with power and the FireWire cable is connected properly.

If audio playback does not work, please insure that:

- The speakers are properly connected.
- The cables are firmly connected.
- The volume control is correctly set.
- The audio software is correctly installed.

## ***Technical Support***

For additional information about VST products, please visit our Home Page:  
[www.vsttech.com](http://www.vsttech.com)

If you need to speak with technical support, the e-mail and phone numbers are provided below. Before calling SmartDisk for technical support, turn on your computer and call from a phone near the computer.

Please have the following information on hand for your call:

- The serial number on the back of your VST FireWire CD-R/RW Drive
- The part number of the Installation Disk
- The version number of your operating system and any software you are having problems with
- The precise error description or error message displayed
- The name and model of your computer and any other hardware involved in the problem
- Is the problem reproduced every time?
- Has this problem occurred before? If it is a new one, have you recently changed your computer configuration?

**home page** ..... **[www.vsttech.com](http://www.vsttech.com)**  
**email** ..... **[support@vsttech.com](mailto:support@vsttech.com)**  
**phone** ..... **(978) 635-8282**  
**fax** ..... **(978) 635-8283**

# Technical Specifications

Bus interface:	FireWire
Audio Output:	Line level stereo mini-jack
Power:	FireWire bus powered Optional AC Adapter
Average Access Time:	140 ms
Data Transfer Rate:	Write: 4x - 600Kbytes/sec ReWrite: 4x - 600Kbytes/sec Read: 20x - 3000Kbytes/sec
Buffer Memory:	2MB
Package includes:	Tray-loading VST FireWire CD-R/RW; Adaptec Toast® OEM version 4.1.2 or higher supplied on CD; FireWire Cable; Instruction Manual
Mechanism Supported Writing Modes:	CD-ROM, CD-DA (Audio CD), CD-ROM/XA, Audio-combined CD-ROM, CD-I, CD-I Ready, CD Bridge, Video CD, CD-Extra , CD-R/W and CD-Text, ISO 9660, Photo CD
Mechanism Supported Playback Formats:	CD-ROM, CD-DA (Audio CD), CD-ROM/XA, Audio-combined CD-ROM, CD-I, CD-I Ready, CD Bridge, Video CD, CD-Extra, CD-Text, CD-R discs (Orange Book, Part II) and CD-R/W (Orange Book, Part III), ISO 9660, Photo CD
Writing Methods:	Disc-at-Once, Session-at-Once, Track-at-Once, Multi-session and Packet-Writing
<b>PHYSICAL SPECIFICATIONS</b>	
Weight:	16.3 ounces/463 grams
Dimensions:	5.524 in (w) x 7.032 in (d) x .970 in (h) 140 mm (w) x 179 mm (d) x 25 mm (h)
<b>OPERATING ENVIRONMENT</b>	
Temperature Range:	
(Operating)	50°F to 113°F (10°C to 45°C)
(Non-operating)	-40°F to 140°F (-40°C to 60°C)
Humidity:	20 - 80% relative humidity, non-condensing atmosphere

# Electronic Compliance

## Federal Communications Commission

Verified to comply with FCC Rules for Radiated and Conducted Emission, Part 15, Subpart B, for Class B Equipment.

## EC-EMC Declaration of Conformity

We VST Technologies  
125 Nagog Park  
Acton, MA 01720

declare under sole responsibility that the VST FireWire CD-R/RW Drive model numbers  
USBCDRW-F

to which this declaration relates, meet the essential requirements and  
are in conformity with the relevant EC Directives listed below using the  
relevant section following EC standards and other normative documents:

EU EMC Directive 89/336/EEC

Essential health and safety requirements relating to electromagnetic compatibility

EN 55022 (1987) Class B

Limits and methods of measurements of Radio interference characteristics of  
information technology equipment

IEC 801-2 (1991)

Electrostatic discharge requirements for industrial process measurement and  
control equipment

EC 801-3 (1984)

Radiated electromagnetic field requirements for industrial process measurement  
and control equipment

IEC 801-4 (1988)

Electrical fast transients for industrial process measurement and control equipment

EN 50082-1 (1992)

EC generic immunity requirements, category A&B

The CE marking has been affixed on the device according to article 10 of the EC Directive 89/336/EEC.

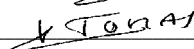
Place NASSY FRANCE

Signature



Date 27 Aug. 1998

Full Name



## Limited Warranty

SmartDisk Corporation warrants its products to be free of defects in material and workmanship under normal use and service for a period of 1 year from the date of purchase or 18 months from the date of manufacture, whichever occurs first. SmartDisk's sole obligation with respect to claims of non-conformance made within the one (1) year warranty period described above shall be, at its option, to repair or replace any item of Equipment which SmartDisk, in its sole discretion, determines to be defective. The Customer shall obtain a Return Merchandise Authorization (RMA) number from SmartDisk prior to returning any Equipment to SmartDisk under this warranty by contacting Technical Support at (978) 635-8282 or email at support@vsttech.com. The Customer shall prepay shipping charges for Equipment returned to SmartDisk for warranty service, and SmartDisk shall pay freight charges for the return of the Equipment to the Customer, excluding customs duties or taxes, if any. All returns require a dated proof of purchase and a letter explaining the problem. SmartDisk Corporation, Inc. will not be responsible for items returned without an RMA or improperly packaged. Replacement Equipment shall be new or like new in performance and shall be warranted for the remaining duration of the warranty term of the non-conforming Equipment. All replaced Equipment shall become the property of SmartDisk. Any claims of defects not made within such one (1) year period shall be deemed waived by Customer.

SmartDisk's warranty obligations hereunder are expressly conditioned upon (i.) the Products being properly installed, used and maintained at all times by Customer; (ii.) the Products not being subject to unusual mechanical stress or unusual electrical or environmental conditions or other acts of God; (iii.) the Products not being subjected to misuse, accident or any unauthorized installation/ de-installation by Customer or other third party; (iv.) the Products not being altered or modified in an unauthorized manner, unless approved in writing or otherwise performed by SmartDisk and (v.) Customer promptly installing all Product revisions which have been released for such Products by SmartDisk throughout the warranty term. SmartDisk does not warrant that the Products will operate in any specific combination which may be selected for use by Customer or that the operation of the Products will be uninterrupted or error free, or that all non-conformance or defects will be remedied. Additionally, SmartDisk shall have no warranty obligations for any failure of the Products to conform to the applicable Product specifications resulting from the combination of any Product(s) with hardware and/or software not supplied by SmartDisk. If it is determined that any Product(s) reported as defective or non-conforming by Customer during the warranty period is not defective or non-conforming, SmartDisk may, at its option, charge Customer for any labor provided and expenses incurred by SmartDisk in connection with such determination, at SmartDisk's then current rates.

THE WARRANTIES OF SMARTDISK AND REMEDIES OF CUSTOMER SET FORTH IN THIS SECTION ARE EXCLUSIVE AND ARE GIVEN BY SMARTDISK AND ACCEPTED BY CUSTOMER IN LIEU OF ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ALL SUCH OTHER WARRANTIES BEING HEREBY EXPRESSLY AND UNEQUIVOCALLY DISCLAIMED BY SMARTDISK AND WAIVED BY THE CUSTOMER.





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